



**Air Quality Stack Test
Joint Application Design
and Process Improvement
Report Out**

August 11-15, 2008

The Team



Team Members

Brian Hutchins

- **Jeremy Arndt, AQB - DNR**
- **Diane Brockshus, AQB - DNR**
- **Dawn Connet, IT - DNR**
- **Karrie Darnell, AQB – DNR**
- **Corey Detter, AQB - DNR**
- **Marguerite Fitchpatric, IT – DNR**
- **Brian Hutchins, AQB – DNR**
- **Sarah Piziali, AQB – DNR**
- **Mike Rohlf, DOM**
- **Aaron Schmidt, AQB – DNR**
- **Mark Stone, AQB - DNR**
- **Nathan Stueve, AQB – DNR**
- **Dennis Thielen, AQB - DNR**

Background

Brian Hutchins

- Why did we do this?

Objectives

Karrie Darnell

- **Identify the needs of the Air Quality staff for the system**
- **Outline the system design to provide a developer the requirements for a stack test system to be readily and easily available to Air Quality staff**
- **Determine what historical data can and will be imported**
- **Estimate the development effort and set completion date**
- **Develop the system to centralize the data**
- **Standardize data entry**

Goals

Sarah Piziali

- **Improve query accuracy by 100%**
- **Stack Test System operating by June 30, 2009**
- **Develop a training program for the Stack Test System by June 30, 2009**
- **Determine responsibilities of the users of Stack Test System by June 30, 2009**

Joint Application Design and Process Improvement Methodology

Dawn Connet and Mike Rohlf

- Clear objectives
- Team process
- Tight focus on time
- Quick & simple
- Necessary resources immediately available
- Immediate results (new process designed by end of week)

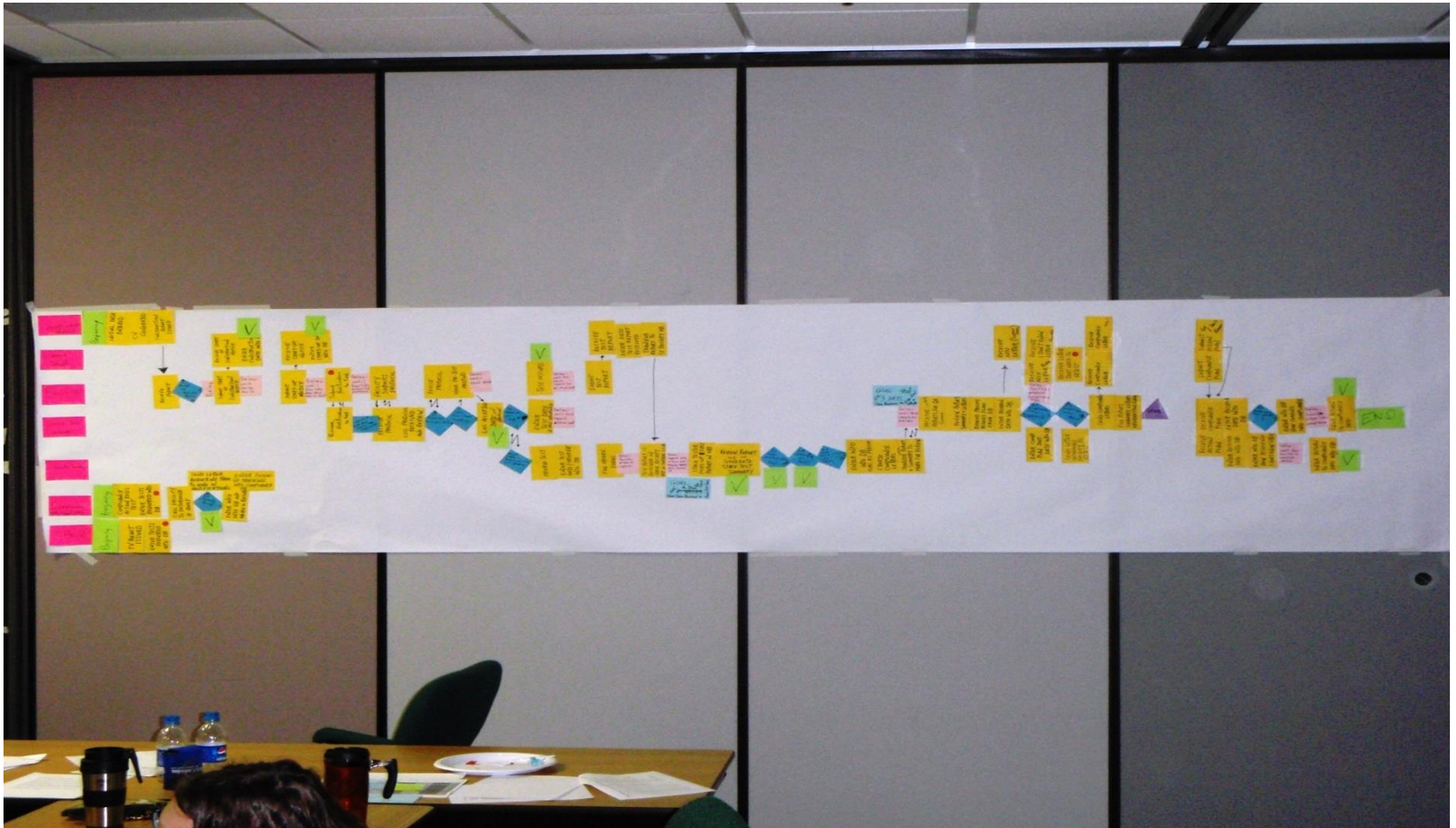
Changes From Old to New Process

Corey Detter

	Old Process	New Process	Percent Change
Steps with Loop Backs	484	166	Decrease of 65.7%
Actual Steps	95	66	Decrease of 30.5%
Delays	18	13	Decrease of 27.8%
Handoffs	21	17	Decrease of 19.1%
Decisions	14	13	Decrease of 7.1%
Functions	10	7	Decrease of 30.0%
Loops	4	1	Decrease of 75%
Percent Value Added	6.3% (6 of 95) or 1.2% (6 of 484)	13.6% (9 of 66) or 5.4% (9 of 166)	Increase of 50% (6 to 9)

The New Process


Dennis Thielen




New App.: Facility Summary

Marguerite Fitchpatric

Facility Summary

 Address: Go!

**DNR Stack Test
Facility Summary**

[Administration](#) [Reports](#)
[Facility Contacts](#)

Facility ID:

Facility Name:

CP Permit #:


Title V Permit #:


Edit	Permit #	EP ID	Emission Point Description	Pollutant	Test Date	Status
	07-A-301	EP-6	Test	PM-10	07-01-08	Pass
	07-A-301-S1	PM-10	Test	PM-2.5	07-12-08	Failed
	97-B-022	EP-22	Test	Magnesium	08-04-2008	Rejected
		PM-10	Square Thing	PM 2.5		Not Required

New App.: Results Data Entry

Marguerite Fitchpatric

Results Data Entry

 Address:



**DNR Stack Test
Results Data Entry**

[Administration](#) [Reports](#)
[Facility Contacts](#)

Facility ID:

Facility Name:

Equipment Address:

Mailing Address:

City: State: Zip Code:

Contact Name:

CP Permit #:

Title V Permit #:

Emission Point Numer:

Emission Point Description:

Control Equipment:

Testing Required: ☐ Yes ☐ No

Observer:

Reviewer:

Firm Name:

Method Used:

Test Denial Comments:

Things didn't look good.

Test Observation Comments:

Things didn't look good.

[Attach Document](#)

Contact Information

Testing Contact First:

Testing Contact Last:


Testing Contact Phone:

Testing Contact Email:

New App.: Test Detail

Marguerite Fitchpatric

Test Detail



**DNR Stack Test
Test Detail**

Address:

Go!

Administration

Reports

Facility Contacts

ACTIONS

Test Date 03-15-2007
Date Report Received 05-02-2007
Test Accepted 05-30-2007
Compliance Letter Sent 05-31-2007

Test Status: Results Status:

Pollutant:

Test Method:

Average Concentration: Units of Measure:

Concentration Limits: Units of Measure:

Average Emission Rate: Units of Measure:

Emission Limit: Units of Measure:

Production Rate Tested PPH

Rated Production Rate: Units of Measure:

Avg Flow FCSM:

Opacity:

Control Equipment Description:

Observer:

Reviewer:

Firm Name:

Raw Material:

Test Denial Comments:

Test Observation Comments:

DOCUMENTS

Test Report
Test Summary
Compliance Letter


New App.: Reporting Test Results

Marguerite Fitchpatric

Reporting Test Results

Address:

Go!



**DNR Stack Test
Reporting Test Results**

[Administration](#) [Reports](#)
[Facility Contacts](#)

Facility ID:

Facility Name:

Permit Number:

Emission Point Number:

Add Actions

Action: Date: Reason:

Test Date:

Test Status:

Average Concentration: Unit of Measure:

Concentration Limits: Unit of Measure:

Average Emission Rate: Unit of Measure:

Production Rate Tested: Measure: Type:

Rated Production Rate: Unit of Measure:

Raw Material:

Emission Limit:

Avg Flow SCFM:

Opacity:

Test Method:

Compliance Letter Date:

Date Report Received:

Observer Name:

Test Firm:

Review Completed Date:

Test Completed Date:

Reviewer Name:

Protocol Reviewed Date:

Protocol Received Date:

Pass/Fail Notes

Save

Save & Add New Test Results


Save Test Results As Final

Add Documents

New App.: New Test Detail

Marguerite Fitchpatric

New Test Detail



DNR Stack Test
New Test Detail

[Administration](#) [Reports](#)
[Facility Contacts](#)

ACTIONS

Test Date 03-15-2007
Date Report Received 05-02-2007
Test Accepted 05-30-2007
Compliance Letter Sent 05-31-2007

Facility ID: 12-23-111
Facility Name: Rite's Test Facility
CP Permit #: 07-A-100
Title V Permit #:
Emission Point Number: EP1

Test Status: Accepted Results Status: Draft
Pollutant: Magnesium
Test Method: Value
Production Rate Tested 50,000 PPH Steam
Avg flow FCSM: Value Units of Measure:
Opacity: Value
Control Equipment Description: Square Verical Thing
Observer: Stone, M.
Rated Prod: Reviewer: Stone, Mark
Firm Name: GE Consultants

Test Denial Comments: Things didn't look good.
Test Observation Comments: Things didn't look good.

DOCUMENTS

Test Report
Test Summary
Compliance Letter

Limit Value	Unit of Measure/LIMIT	Results Value	Unit of Measue/RESULTS	Reason	SCC
2	GR/SCF	.01	GR/SCF	IAC	122-1111
3	LB/HR	1.2	LB/HR	NAAQF	432-1111

KAIZEN NEWSPAPER (Homework)

Nathan Stueve

Item	Item Description	Person Responsible	Due Date
1	SOP for Title V, Con-Perm for database entry	*Jeremy, Corey, Karrie	
2	Welcome call for Notification and Protocol SOP	*Sarah, Nathan	Done
3	Update Operating sheet, summary sheet	*Mark, Brian	8/15/08
4	SCC entering procedures and relation to app	Karrie	
5	SPARS Unit labels pare down	Sarah	9/15/08
6	E-copy of letters for comp. letters	*Brian, Nathan, Mark, Dennis	9/15/08
7	SOP for Stack Test data entry and protocol	*Nathan, Dennis	9/15/08

KAIZEN NEWSPAPER (Homework)

Nathan Stueve

Item	Item Description	Person Responsible	Due Date
8	SOP for queries	*Jeremy, Corey, Karrie, Diane, Rite	6/30/09
9	Put together manual	*Dennis and rest of team	6/30/09
10	SOP for support staff	*Diane, Karrie	6/30/09
11	SOP for Compliance	*Diane, Karrie	6/30/09
12	Standardized cover page/report	*Brian, Nathan, Mark	6/30/09
13	Standardize protocol	*Nathan, Dennis	6/30/09
14	Update permits notify	*Sarah, Rite	6/30/09

KAIZEN NEWSPAPER (Homework)

Jeremy Arndt

Item	Item Description	Person Responsible	Due Date
15	Potential update for SOCN and SUN	*Diane, *Sarah	6/30/09
16	Standardized cover letter for Con perm	*Corey, Sarah, Rite	6/30/09
17	Modify IAC rules: pre test	*Brian, Dennis, Mark	6/30/09
18	SOP of Historical Data P Drive and mbd Interns to QA/QC for historical data	*Sarah, Brian, Nathan, with team as needed	6/30/09
19	Potential data exports for EPA, AFS, ERT, etc.	*Dennis, Rite	6/30/09
20	Complete waiver form for notification necessary or not	*Corey, Dennis	6/30/09
21	SOP on Modifying Protocols	*Mark, Nathan	6/30/09

KAIZEN NEWSPAPER (Homework)

Diane Brockshus

Item	Item Description	Person Responsible	Due Date
22	New "Stack Testers" requirements decisions, letters, flags add to existing SOP	*Mark, Brian	6/30/09
23	SOP for compliance plans	See SOP for stack test data entry	
24	Build Data Management System	*IT DNR, Team	6/1/09
25	Review , Revise and test	*Team, IT DNR	30, 60, 90
26	NOTES: * = CHAMPION FOR THAT ITEM DESCRIPTION AND ARE RESPONSIBLE		
27	ALSO, BRIAN HUTCHINS WILL BE ASKING THE CHAMPIONS HOW THE WORK TO BE COMPLETED IS COMING ALONG.	FINALLY, AARON SCHMIDT WILL ASK BRIAN HOW THE ABOVE 25 ITEMS ARE BEING COMPLETED	

Team Member's Experience

Mark Stone

and

Marguerite Fitchpatric

Comments

Dawn Connet,

Mike Rohlf,

and

Aaron Schmidt

We welcome your questions
and comments!